

WHAT IS CLAIMED IS:

1. A method for displaying banners on a TV screen, used in a set-top box connected to a TV set, wherein the set-top box connects to the network for receiving a banner information to let a TV screen display images
5 carrying the banner information, the method comprising the steps of:

(A) receiving at least one image signal selected from the group consisting of a TV-transmitted image signal, a video-transmitted image signal, or a compact disk drive-transmitted image signal;

10 (B) processing the image signal to obtain a size-reduced image signal so that the size-reduced image signal displayed on the TV screen is reduced in size, and positioning the size-reduced image signal on the TV screen;

(C) receiving banner information via the network;

15 (D) processing banner information to obtain a banner image signal displayed on the TV screen, and arranging the position of the banner image signal displayed on the TV screen; and

(E) outputting the size-reduced image signal and the banner image signal to the TV set.

20 2. The method as claimed in claim 1, wherein the position of the size-reduced image signal displayed on the TV screen is different from the position of the banner image signal displayed on the TV screen.

3. The method as claimed in claim 1, wherein the step (C) further stores the banner information in the set-top box.

25 4. The method as claimed in claim 3, wherein the step (C), the set-top box retrieves the banner information stored in the set-top box if the set-top box cannot successfully receive the banner information via the network.

5. The method as claimed in claim 4, wherein the banner information stored in the set-top box was previously received by the set-top box.

6. A set-top box used for connecting a network and a TV set to let users browse websites and watch TV from a TV screen, whereby the set-top box can receive at least one image signal and banner information, wherein the image signal is selected from the group consisting of a TV-transmitted image signal, a video-transmitted image signal, or a CD-ROM drive-transmitted image signal, whereby the set-top box can download the banner information through a network, characterized in that the set-top box further comprises:

means for processing the image signal to obtain a size-reduced image signal so that the size-reduced image signal displayed on the TV screen is reduced in size, and positioning the size-reduced image signal displayed on the TV screen;

means for receiving banner information via the network;

means for processing banner information to obtain a banner image signal displayed on the TV screen, and positioning of the banner image signal displayed on the TV screen; and

means for outputting the size-reduced image signal and the banner image signal to the TV set.

7. The set-top box as claimed in claim 6, wherein the position of the size-reduced image signal on the TV screen is different from the position of the banner image signal on the TV screen.

8. The set-top box as claimed in claim 6 further including means for storing banner information in the set-top box.

9. The set-top box as claimed in claim 8 further including means for

retrieving banner information stored in the set-top box if the set-top box cannot successfully receive banner information via the network.

10. The set-top box as claimed in claim 9, wherein previously received banner information is stored in the set-top box.